

MMS

Media Management System

Main functionalities

- Digital Asset Management
- Workflow management
- Editing/processing functionalities
- Media Contents
- Recording application
- Transcoding engine
- Multiple interfaces

Digital Asset Management (1/2)

- MMS is the cloud option to centralize and organize your Media Content: Video, Audio, Images
- MMS thumbnail Media Items view is very visual and easily accessible, no matter the size of your library, MMS help you to keep it manageable
- MMS list Media Items view help you to sort media contents based on information such as title and upload date

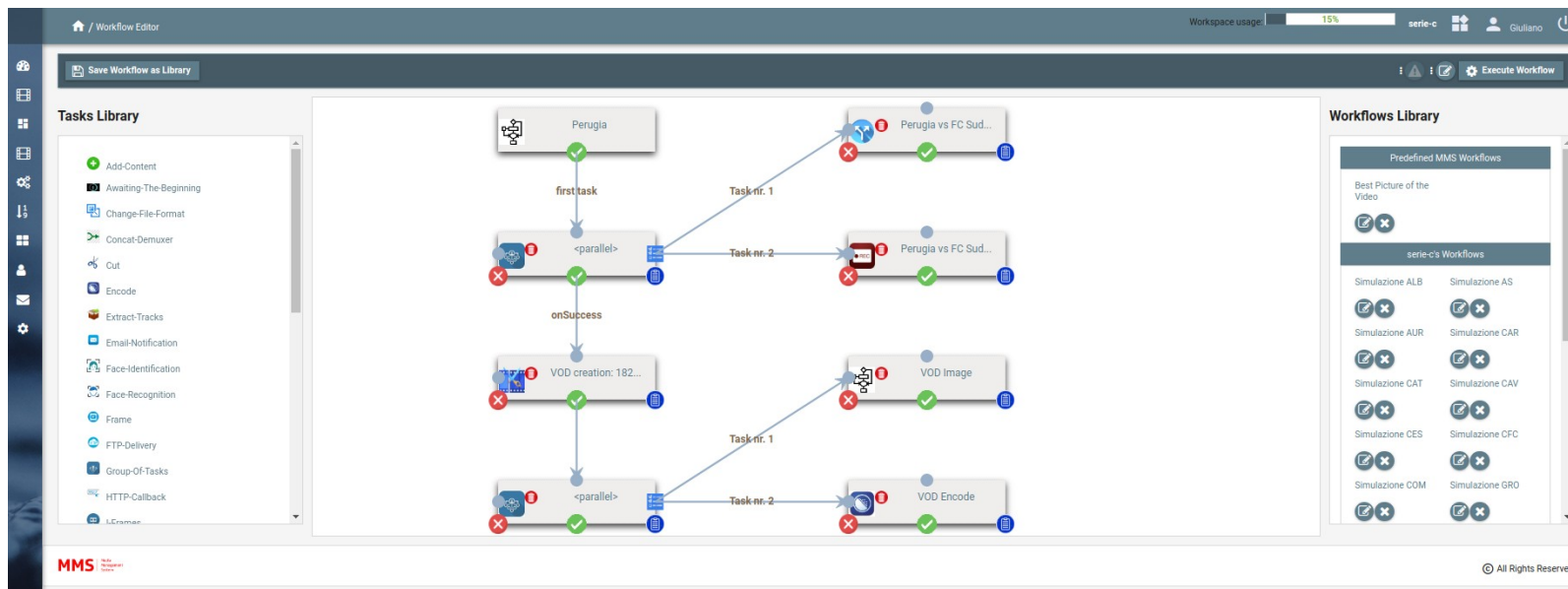


Digital Asset Management (2/2)

- MMS does not need any IT support
- MMS allows you to group Media Contents in Workspaces. For example you can have a Workspace to save all the *News* Media Contents accessible only by the News Editorial Team, and a *Sport* Workspace to save all the *Sport* Media Contents accessible only by the Sport Editorial Team
- Upload of Media Contents is done easily by drag and drop or providing a URL to MMS to upload the media content. In caso of content too large, like videos, it is also possible to upload the content spliting it in chunks
- Metadata can be associated to each content: title, tags, description and any user data information
- Metadata will help you to find the media contents using the Advanced Search dialog

Workflow management

- Workflow defined by the user
- Library of predefined Task
- Task Library can be extendable
- Parallel execution of multiple Workflows
- Management of synchronous and asynchronous Tasks
- Definition of Workflows by API
- Definition of Workflows by Web Interface



Editing/processing functionalities

- Video-Audio Cut and Concat (Frame Accurate)
- Image crop
- Face detection (ex: thumbnails generation) and learning
- Face recognition
- Audio extraction/Processing
- Video-Audio Slow Down
- Video Slide show
- Picture in Picture
- Overlay of image-text
- Live Mosaic
- Live Proxy
- Change file format
- Frame extraction/Processing
- Count-down video creation
- Motion JPEG
- Media Cross References
- POST on Facebook
- POST on YouTube
- FTP delivery
- HTTP callback
- Email-notification

Media Contents

- Live Stream Cloud Ingest (UDP, RTP, SRT, RTMP, HTTP HLS, ecc)
- Direct HD SDI Ingest
- H264, H265, ...
- Multi resolution ingest
- Live-VOD scalability: unlimited
- Live2VOD capabilities: use of live streams to provide VOD catch up
- Editing/Export/Publishing of Media Contents

Upload Media Content

Load Media Content by

Choose or drag and drop the media content

✓ Uploading the file

+ Choose

Title

File name

Tags

Unique name

Retention

title

tags

unique name

retention

3d

Reset

Ingest Media Content into MMS

MMS

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Recording application

- Easy way to record IP live feed (UDP, RTP, SRT, RTMP, HTTP HLS, ecc)
- Preview of each recording
- VOD available for editing during the recording up to 10 seconds from real time
- Scheduling of recording

The screenshot displays the MMS Recorder application interface. At the top, a dark blue header bar shows the 'Recorder' tab, workspace usage at 15%, and user information for 'Giuliano'. Below the header, the main area is divided into two sections. On the left, a large video preview window shows a live feed of a football match between Perugia and FC Sudtiroi, with the score 0-0 and a timer at 00:00. The stadium is visible with 'PERUGIA' written on the stands. On the right, a metadata panel lists details for the recording: Title (Perugia vs FC Sudtiroi), Channel (182521), Start (2021-03-21 11:45:00), End (2021-03-21 14:30:00), and a 'Copy URL' button. Below this, a 'Planned Recording List' table is shown. The table has columns for Key, Ingestor, Title, Channel, Start, End, and Virtual VOD. It lists two recordings: 'Perugia vs FC Sudtiroi' (Key 182521) and 'Calcio Catania vs US Avelino 1912' (Key 215055). The first recording is highlighted in green. At the bottom left, the MMS logo is visible, and at the bottom right, a copyright notice '© All Rights Reserved' is present.

Workspace usage: 15% serie-c Giuliano

Recording Title: Perugia vs FC Sudtiroi

Stop recording Create new recording

PER 0-0 SUD 00:00

PERUGIA

PERUGIA vs FC SUDTIROI

Channel 182521

Start 2021-03-21 11:45:00

End 2021-03-21 14:30:00

Copy URL

Created by Giuliano

Planned Recording List

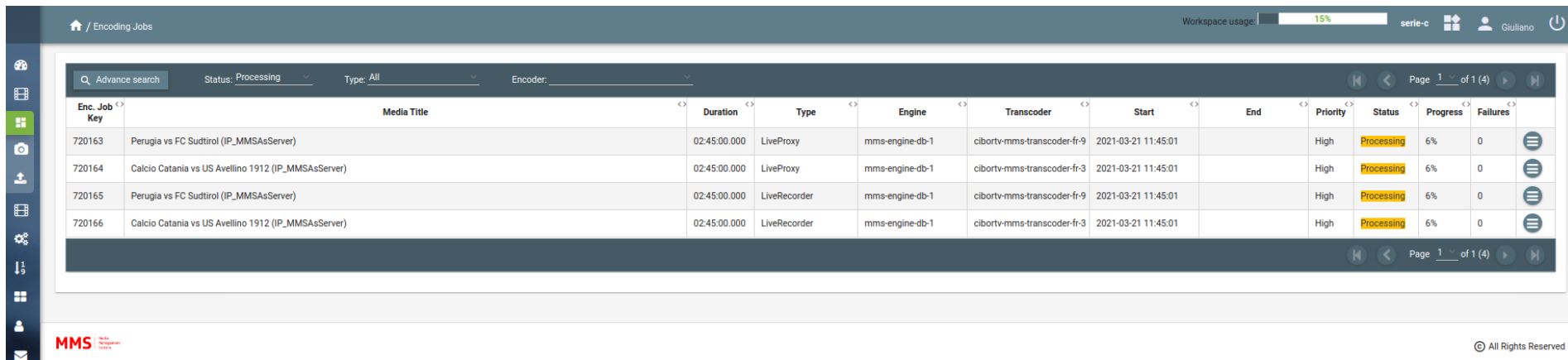
Key	Ingestor	Title	Channel	Start	End	Virtual VOD
No records found.						
Sun 21 March						
182521	Perugia vs FC Sudtiroi					
215055	Calcio Catania vs US Avelino 1912					

MMS

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Transcoding engine

- ffmpeg open source used by default
- Possible integration with third party transcoders
- H264/H265/... Input/Output
- Management of array of transcoders
- Management of encodings by priorities
- Load balancing of Transcoders



The screenshot displays the 'Encoding Jobs' interface of the MMS system. At the top, there's a header bar with 'Workspace usage: 15%' and user information 'serie-c' and 'Giuliano'. Below this is a search bar and filters for 'Status: Processing', 'Type: All', and 'Encoder:'. The main area contains a table with 11 columns: Enc. Job Key, Media Title, Duration, Type, Engine, Transcoder, Start, End, Priority, Status, Progress, and Failures. There are 4 rows of data, all showing jobs in 'Processing' status with 6% progress and 0 failures. The bottom of the interface shows the MMS logo and '© All Rights Reserved'.

Enc. Job Key	Media Title	Duration	Type	Engine	Transcoder	Start	End	Priority	Status	Progress	Failures
720163	Perugia vs FC Sudtirol (IP_MMSAsServer)	02:45:00.000	LiveProxy	mms-engine-db-1	cibortv-mms-transcoder-fr-9	2021-03-21 11:45:01		High	Processing	6%	0
720164	Calcio Catania vs US Avellino 1912 (IP_MMSAsServer)	02:45:00.000	LiveProxy	mms-engine-db-1	cibortv-mms-transcoder-fr-3	2021-03-21 11:45:01		High	Processing	6%	0
720165	Perugia vs FC Sudtirol (IP_MMSAsServer)	02:45:00.000	LiveRecorder	mms-engine-db-1	cibortv-mms-transcoder-fr-9	2021-03-21 11:45:01		High	Processing	6%	0
720166	Calcio Catania vs US Avellino 1912 (IP_MMSAsServer)	02:45:00.000	LiveRecorder	mms-engine-db-1	cibortv-mms-transcoder-fr-3	2021-03-21 11:45:01		High	Processing	6%	0

Multiple interfaces

- REST API: integration of all MMS functionalities
- Java MMS REST API Library
- Java MMS Workflow Library
- Secure Content delivery (token by path or parameter, TTL, max retries)
- Users' rights management (native or integration with Active Directory available)
- WEB interface